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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/673,182

09/30/2003

Seuk-Jin Yun

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EXAMINER

NGUYEN, LAM S

ART UNIT

PAPER NUMBER

2853

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/673,182

Applicant(s)

YUN, SEUK-JIN

Examiner

LAM S. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,5,6 and 9-21 is/are allowed.
- 6) ☒ Claim(s) 3 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1 Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasahara et al. (US 2002/0054305 A1) in view of Yamasaki et al. (US 2003/0048326 A1).

Ogasahara et al. discloses a method to control an apparatus to correct a white line (*FIG. 19B: WHITE STRIPE*) of an ink-jet printer comprising:

driving a pickup roller (*Fig. 43A-B, element 3A-B*) to pick up a paper when a printing command is inputted;

judging whether the leading end of the paper enters the printer using a paper-detection sensor (*Paragraph 0332*]: *The sensor or the like detects the front end of the printing sheet*);

sequentially implementing the printing in a normal printing area, using nozzles, and feeding in accordance with a preset printing width (*FIG. 37B and FIG. 40: Printing operation corresponds to where sheet feeding error not occurring*); and

implementing the printing using dummy nozzles which are not used in the printing of the sequential implementing operation (*Fig. 40: Backup ejection ports are not used when the sheet feeding error not occurring*), in such a way that the printing is performed for the overfeeding amount judged in the judging operation as well as for the printing width of the

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sequential implementing operation, when the line positioned just before the overfeeding position judged in the judging operation is printed, thereby forming an overfeeding printing area that is greater than the normal printing area (*FIG. 40: When the sheet feeding error occurring, both the normal and backup ejection ports are implemented to print the preset printing width. FIG. 37B-C and paragraph [0016]: The actual printed (overfeeding) area, in case shown in FIG. 37C, is greater than the normal printed area in case shown in FIG. 37B due to the dot deviation in the feeding direction because the lack of an appropriate tension acting on the sheet when the sheet is disengaged from one of pairs of rollers*).

Ogasahara et al., however, does not disclose judging a corresponding overfeeding amount and overfeeding position in accordance with a type of the paper.

Yamasaki et al. teaches that the precision of a sub-scan feed amount of a printing medium depends on the type of the printing medium. For example, the actual feed amount (overfeeding or underfeeding amount) may vary considerably between printing media with easy-slip surfaces and printing media with surfaces that do not slip easily (*paragraph [0005]*) or between printing medium having different materials such as ordinary paper, glossy film, photographic paper (*FIG. 14*), wherein the error amount reflected by correction values are stored in a look up table (*FIG. 14*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the controller disclosed by Ogasahara et al. to also consider the type of the printing medium in determining the error feeding as disclosed by Yamasaki et al. The motivation for doing so would have been to ensure the degree of precision of the paper feed

in order to obtain great effect on the image quality as taught by Yamasaka et al. (*paragraph [0006]*).

**Referring to claim 4:** secondarily implementing the printing using the nozzles, used in the implementing operation, retreated to the extent of the width of the area of the dummy nozzles from the position of the dummy nozzles used in the sequential implementing operation until the printing is terminated starting from the line positioned just after the line printed in the implementing operation (*FIG. 37B-C, and 40*).

***Allowable Subject Matter***

2. Claims 1-2, 5-6, 9-21 are allowed.

**Referring to claim 1:** The primary reasons for the indication of the allowability of the claim(s) is the inclusions therein, in combination as currently claimed, of the limitation that outputting control signals if the control section judges that the printing position is located on the line positioned just before the overfeeding position, so that the printing is implemented by dummy nozzles corresponding to the overfeeding amount together with nozzles corresponding to the entire preset printing width, thereby forming an overfeeding printing area that is greater than a normal printing area printed by the nozzles alone is neither disclosed nor taught by the cited prior art of record, alone or in combination.

**Referring to claim 5:** The primary reasons for the indication of the allowability of the claim(s) is the inclusions therein, in combination as currently claimed, of the limitation that wherein if the printing position is just before the overfeeding position, the dummy nozzles print a width corresponding to the overfeeding amount together with all of the nozzles printing the normal printing area, thereby forming an overfeeding printing area that is greater than the normal

printing area is neither disclosed nor taught by the cited prior art of record, alone or in combination.

**Referring to claim 11:** The primary reasons for the indication of the allowability of the claim(s) is the inclusions therein, in combination as currently claimed, of the limitation that employing dummy nozzles in addition to all of the nozzles to print in accordance with the judged overfeeding amount when the line positioned just before the judged overfeeding position is printed, thereby forming an overfeeding printing area that is greater than the normal printing area is neither disclosed nor taught by the cited prior art of record, alone or in combination.

Claims 2, 6, 9-10, and 12-21 are allowed because they depend directly/indirectly on claim 1, 5, or 11.

### ***Response to Arguments***

Applicant's arguments filed 11/02/2006 regarding to claim 3 have been fully considered but they are not persuasive.

The applicants argued that the Ogasahara reference was in contrast to the present invention because the Ogasahara reference did not teach the second area (overfeeding printing area) greater than the normal printing area (first area). It is the examiner point of view that the actual printed (overfeeding) area on the printing medium (sheet) in case shown in FIG. 37C is greater than the normal printed area in case shown in FIG. 37B, even though the same range of printing elements are used. The greater is due to the dot deviation in the feeding direction when the sheet is disengaged from one of pairs of rollers that causes lack of an appropriate tension acting on the sheet (paragraph [0016]).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S. NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Lam Son Nguyen', with a stylized, cursive script.

LAM SON NGUYEN